

# Lake Hiawatha Lake Vegetation Index Results (8-9-2017)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction

of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units (Figure 1). Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

**TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.**

<b>Aquatic life use category</b>	<b>LVI Range</b>	<b>Description</b>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake Hiawatha was 80, placing the lake's vegetative community in the exceptional category.

Twenty species were found during the survey. The native species maidencane (*Panicum hemitomon*) and pond cypress (*Taxodium ascendens*) were the most dominant species in the lake. Other native shoreline

vegetation included; red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*) and myrtle dahoon (*Ilex myrtifolia*). The exotic floating plant, water spangles (*Salvinia minima*) was also found during the survey.

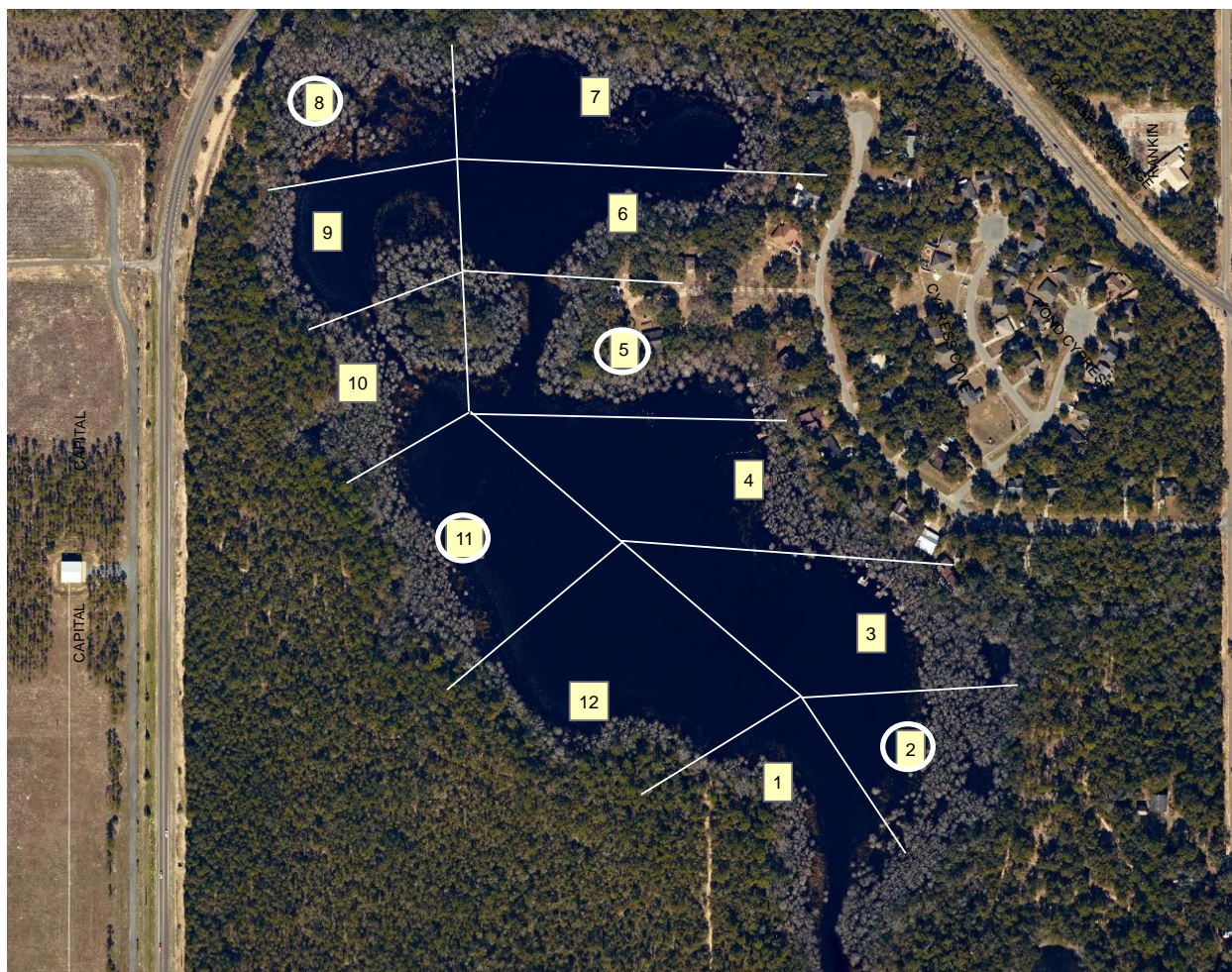
For a complete list of plants found during the LVI survey, please see Table 2.

**TABLE 2. Scientific and common names of the plants identified during the Lake Hiawatha LVI survey (8-24-16).**

<b>Species Name</b>	<b>Common Name</b>
<i>Acer rubrum</i>	red maple
<i>Bidens mitis</i>	smallfruit beggartick
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cyrilla racemiflora</i>	swamp titi
<i>Gelsemium sempervirens</i>	evening trumpet flower
<i>Habenaria repens</i>	water spider orchid
<i>Ilex myrtifolia</i>	myrtle dahoon
<i>Leersia hexandra</i>	southern cutgrass
<i>Liquidambar styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf ludwigia
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Panicum hemitomon</i>	maidencane
<i>Polygonum punctatum</i>	dotted smartweed
<i>Quercus virginiana</i>	southern live oak
<b><i>Salvinia minima</i></b>	water spangles
<i>Serenoa repens</i>	saw palmetto
<i>Smilax</i> sp.	greenbrier
<i>Taxodium ascendens</i>	pond cypress
<i>Triadenum virginicum</i>	marsh st. johnswort
<i>Vitis rotundifolia</i>	muscadine

Names in bold are exotic

For additional information about the LVI please go to the Florida Department of Environmental Protection webpage;  
[http://www.dep.state.fl.us/water/sas/training/docs/lvi\\_primer.pdf](http://www.dep.state.fl.us/water/sas/training/docs/lvi_primer.pdf).



**FIGURE 1. Lake Hiawatha showing unit divisions. Circled numbers denote surveyed units.**